

We Claim:

1. An antiseptic composition comprising at least one salt of ethylene diamine tetraacetic acid (EDTA) at a concentration of at least 1.0% (w/v) having at least four of the following properties: anticoagulant properties; inhibitory and/or bactericidal activity against a broad spectrum of bacteria in a planktonic form; inhibitory and/or fungicidal activity against a spectrum of fungal pathogens; inhibitory and/or bactericidal activity against a broad spectrum of bacteria in a sessile form; inhibitory activity against protozoan infections; inhibitory activity against *Acanthamoeba* infections; safe and biocompatible, at least in modest volumes, in contact with a patient; safe and biocompatible, at least in modest volumes, in a patient's bloodstream; and safe and compatible with industrial objects and surfaces.

2. An antiseptic composition of claim 1, wherein the at least one salt of EDTA is selected from the group consisting of: di-sodium, tri-sodium, tetra-sodium, ammonium, di-ammonium, potassium, di-potassium, cupric di-sodium, magnesium di-sodium, ferric sodium, and combinations thereof.

3. An antiseptic composition of claim 1, comprising tri- and tetra-sodium EDTA in a solution having a pH higher than 8.5.

4. An antiseptic composition of claim 3, wherein the solution has a pH higher than 9.5.

5. An antiseptic composition of claim 4, comprising EDTA at a concentration of at least 2.0%.

6. An antiseptic composition of claim 1, additionally comprising water and an alcohol.

7. An antiseptic composition of claim 6, comprising less than 10% (v/v) ethanol.

8. An antiseptic composition of claim 1 that is substantially free from compositions (other than EDTA salt(s)) having antimicrobial and/or anti-fungal activity that is at least 50% of the anti-microbial and/or antifungal activity of a sodium EDTA salt composition in aqueous solution at a concentration of 4% (w/v) and at a pH of 10.5.

9. An antiseptic composition of claim 1 consisting essentially of at least one EDTA salt.

10. An antiseptic composition of claim 1 formulated for topical application to surfaces and objects.
11. An antiseptic composition of claim 1 formulated in a dry form that, upon reconstitution with a solvent, forms a solution.
12. An antiseptic composition comprising at least one sodium EDTA salt in an aqueous solvent at a concentration of between 1.5% and 15% EDTA salt(s) (w/v) and having a pH of at least 8.5.
13. An antiseptic composition of claim 12 comprising tri- and tetra-sodium EDTA salts in an aqueous solvent at a concentration of between 2.0% and 8.0% (w/v) EDTA salt(s) and having a pH of at least 9.0.
14. An antiseptic composition of claim 12, wherein the aqueous solvent is selected from the group consisting of: water, saline, and water and an alcohol.
15. An antiseptic composition of claim 14, comprising ethanol at a concentration of less than 10% (v/v).
16. An antiseptic composition of claim 12 formulated for topical application to surfaces and objects.
17. An antiseptic composition of claim 12 formulated in a dry form that, upon reconstitution with a solvent, forms a solution.
18. An antiseptic composition of claim 12 formulated in a time release formulation that provides antiseptic activity over an extended period of time and/or upon multiple exposures to the composition.
19. An antiseptic composition of claim 12 in a sterile, pyrogen-free form.
20. A method for inhibiting the growth and proliferation of microbial populations and/or fungal pathogens on a surface or object, comprising contacting the surface or object with a sanitizing composition comprising at least one salt of EDTA at a concentration of at least 1.0% (w/v).
21. A method of claim 20, wherein the sanitizing composition comprises tri- and tetra-sodium EDTA and has a pH of at least 9.
22. A method of claim 20, wherein the sanitizing composition is substantially free from compositions (other than EDTA salt(s)) having antimicrobial and/or anti-fungal activity that is at least 50% of the anti-microbial and/or antifungal activity of a tri- and tetra-sodium

EDTA salt composition in aqueous solution at a concentration of 4% (w/v) and at a pH of 10.5.

23. A method of claim 20, wherein the surface or object is selected from the group consisting of: catheters, medical tubes and conduits, intravascular devices, implanted medical devices, medical instruments and devices, contact lenses, optical implants, dental, orthodontic and periodontal devices, water storage, distribution and treatment facilities, industrial equipment and food preparation and processing equipment.

24. A method for inhibiting the growth and proliferation of *Acanthamoeba* organisms on a surface or object, comprising contacting the surface or object with a sanitizing composition comprising at least one salt of EDTA at a concentration of at least 1.0% (w/v).

25. A method for substantially eradicating a broad spectrum of microbial populations, comprising contacting an infected object or surface with a sanitizing composition comprising at least one EDTA salt, in solution, at a concentration of at least 1.0% (w/v).

26. A method of claim 25, wherein the sanitizing composition comprises tri- and tetra-sodium EDTA salts, in solution, at a pH of at least 8.5.

27. A method for inhibiting the growth and proliferation of microbial populations on a medical device, comprising contacting a surface of the medical device with a sanitizing composition comprising at least one EDTA salt, in solution, at a concentration of at least 1.0% (w/v).

28. A method of claim 27, wherein the sanitizing composition comprises tri- and tetra-sodium EDTA salts, in solution, at a pH of at least 8.5.

29. A method of claim 27, wherein the solution is an aqueous solution.

30. A method of claim 27, wherein the solution is an aqueous solution and additionally comprises an alcohol.

31. The method of claim 27, wherein the medical device is selected from the group consisting of: catheters, medical tubes and conduits, intravascular devices, implanted medical devices, medical instruments, contact lenses, optical implants, dental, orthodontic and periodontal devices.